CLAIMS

1. A wireless communication system, comprising:

transmitter circuitry comprising circuitry for transmitting a plurality of frames to a receiver in a first cell;

wherein each of the plurality of frames comprises a bit group;

wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell;

wherein the transmitter circuitry further comprises circuitry for inserting a bit sequence into the bit group; and

wherein the bit sequence is selected from a plurality of bit sequences such that successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences.

2. The system of claim 1:

wherein each of the plurality of frames comprises a midamble; and

wherein the midamble comprises the bit group.

3. The system of claim 2 wherein the plurality of bit sequences consists of two bit sequences.

4. The system of claim 3:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein the bit sequence is selected from the plurality of bit sequences in response to the system frame number.

5. The system of claim 4 wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

6. The system of claim 2 wherein the plurality of bit sequences consists of four bit sequences.

7. The system of claim 1 wherein the plurality of bit sequences consists of four bit sequences.

8. The system of claim 1 wherein the plurality of bit sequences consists of two bit sequences.

9. The system of claim 8:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein the bit sequence is selected from the plurality of bit sequences in response to the system frame number.

10. The system of claim 9 wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

11. The system of claim 1:

wherein each of the plurality of frames comprises a midamble;

wherein the midamble comprises the bit group;

wherein the plurality of bit sequences consists of two bit sequences; and

wherein the transmitter circuitry comprises CDMA transmitter circuitry.

12. The system of claim 1:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein each bit sequence is selected from the plurality of bit sequences in response to the system frame number.

13. The system of claim 1 wherein the transmitter circuitry comprises CDMA transmitter circuitry.

14. The system of claim 1 wherein the transmitter circuitry comprises TDMA transmitter circuitry.

15. The system of claim 1 and further comprising the receiver, wherein the receiver comprises:

circuitry for receiving the plurality of frames; and

circuitry for identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.

16. The system of claim 15 wherein the circuitry for identifying paths in the plurality of frames as actual paths identifies paths as actual paths in response to paths in the plurality of frames have a like chip position.

17. A wireless communication system, comprising:

receiver circuitry comprising circuitry for receiving a plurality of frames from a transmitter in a first cell;

wherein each of the plurality of frames comprises a bit group having a bit sequence;

wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell;

wherein the receiver circuitry further comprises circuitry for identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.

18. The system of claim 17 wherein the circuitry for identifying paths identifies paths as actual paths in response to paths in the plurality of frames have a like chip position.

19. The system of claim 17:

wherein each of the plurality of frames comprises a midamble; and

wherein the midamble comprises the bit group.

20. The system of claim 19 wherein the plurality of bit sequences consists of two bit sequences.

21. A method of operating a wireless communication system, comprising the steps of:

transmitting a plurality of frames by transmitter circuitry to a receiver in a first cell;

wherein each of the plurality of frames comprises a bit group;

wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell;

wherein the transmitting step comprises inserting a bit sequence into the bit group; and

wherein the bit sequence is selected from a plurality of bit sequences such that successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences.

22. The method of claim 21:

wherein each of the plurality of frames comprises a midamble; and

wherein the midamble comprises the bit group.

23. The method of claim 22 wherein the plurality of bit sequences consists of two bit sequences.

24. The method of claim 23:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein the bit sequence is selected from the plurality of bit sequences in response to the system frame number.

25. The method of claim 24 wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

26. The method of claim 22 wherein the plurality of bit sequences consists of four bit sequences.

27. The method of claim 21 wherein the plurality of bit sequences consists of four bit sequences.

28. The method of claim 21 wherein the plurality of bit sequences consists of two bit sequences.

29. The method of claim 28:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein the bit sequence is selected from the plurality of bit sequences in response to the system frame number.

30. The method of claim 29 wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

31. The method of claim 21:

wherein each of the plurality of frames comprises a midamble;

wherein the midamble comprises the bit group;

wherein the plurality of bit sequences consists of two bit sequences; and

wherein the transmitter circuitry comprises CDMA transmitter circuitry.

32. The method of claim 21:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein each bit sequence is selected from the plurality of bit sequences in response to the system frame number.

33. The method of claim 21 wherein the transmitter circuitry comprises CDMA transmitter circuitry.

34. The method of claim 21 wherein the transmitter circuitry comprises TDMA transmitter circuitry.

35. The method of claim 21 and further comprising the steps of:

receiving the plurality of frames at a receiver station in the first cell; and

identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences it the cycle and the bit group in each of the plurality of frames.

36. The method of claim 35 and further comprising applying channel estimates corresponding to the actual paths to a maximal ratio combiner circuit.

37. A method of operating a wireless communication system, comprising the steps of:

receiving a plurality of frames from a transmitter in a first cell;

wherein each of the plurality of frames comprises a bit group having a bit sequence;

wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell;

identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.

38. The method of claim 37 wherein the identifying step comprises identifying paths as actual paths in response to paths in the plurality of frames have a like chip position.

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